



**MEETING SUMMARY  
WATER RESOURCES ADVISORY COMMISSION (WRAC)  
LOWER WEST COAST WATER SUPPLY PLAN (LWCWSP)  
ISSUES WORKSHOP  
South Florida Water Management District  
Location: Ft. Myers Service Center, 2301 McGregor Boulevard  
Ft. Myers, FL 33901  
Monday, October 18, 2004**

**Attendees:**

**WRAC Members:**

Wayne Daltry

Beverly Grady

Howard Wegis

**Interested Parties:**

Al Abbo

Ed Hanlon

Richard Orth

Mark Abbott

Frank Hartvelt

Roland Ottalini

Rock Aboujaoude

Pam Hayford

Ellen Paterson

Craig Bartoshuic

Tom Hill

John Podczerwinsky

Karen Bickford

Anura Kamna-muni

Tony Polizos

Matt Bixler

Gordon Kennedy

Mary Rawl

Stan Bronson

Joan LeBeau

Ida Roberts

Dennis Cafaro

Ellen Lindblad

David Schlobohm

Rich Calabrese

Johama Lundgren

Moctar Siddo

Lenelle Crowell

Ray March

Tonya Simmons

Rick Dantzler

Kirk Martin

Rick Sosnowski

Ed de la Parte

Paul Mattensch

Ryan Weightman

R. M. Edenfield

Joyce Mazourek

Stan Weiner

Rebecca Elliott

Matt McLean

Mary Ann Gosa

Martha Muscroe

Ron Hamel

Jennifer Nelson

**SFWMD Staff:**

Bruce Adams

Elliott Kambert

Saurabh Srivastava

Kim Arnold

Tim Liebermann

Janet Starnes

Terry Bengtsson

Sally McPherson

Carl Woehlcke

Clarence Tears

Michelle Percy

Linda Hoppes

Rick Smith

1. Welcome by Elliott Kambert, Sr. Planner, Planning and Development, Water Supply, Lower West Coast Service Center, Fort Myers, Florida

Michelle Percy, Division Director, Planning and Development, Water Supply Department, SFWMD, provided an overview of the agenda. Ms. Percy identified staff at SFWMD working on the Lower Coast Water Supply Plan. All stakeholders introduced themselves and stated their affiliation.

2. LWC Project Status, by Linda Hoppes, LWC Project Manager, Water Supply, SFWMD. *(A copy of the handout is made an official part of this meeting summary.)*

Ms. Hoppes reviewed the update process. Information provided on the demographics and conservation workshops; water use, reuse and model methodology workshop; Floridan model workshop; surface, surficial and intermediate aquifer model workshop; reporting to WRAC and Governing Board; multiple meetings; recommendations workshop;; draft plan workshop; present draft plan to WRAC and Governing Board; DEP review of draft plan; and the Governing Board approval of the plan.

Rick Smith provided information on upcoming meetings for WRAC as well as the Lower West Coast Regional Water Supply plan. Tentative dates were presented, and he reported that a final calendar would be released by the end of the week. All interested parties were invited to attend.

Workshop scheduled on water use permitting was discussed. The review process will include "chapter by chapter" review. Staff asked for input from all stakeholders.

3. Spatial Distribution of Future Land Use, by Tim Liebermann, Senior Geographer, Watershed Management, SFWMD. *(A copy of the handout is made an official part of this meeting summary.)*

Mr. Liebermann presented information on future planning and the best estimates used by staff to reach conclusions. A consistent base is needed for developing all alternatives. The methodology used to obtain information was explained. Complicating factors included uncertainty in predicting population, economics, other human factors, environment/climate; and government programs and priorities. The need to acknowledge and resolve competing interests were identified. Information on the collection of the input data, and the land use database were provided.

Population data were used extensively in the water demands analysis for the years between 2000 and 2025. The 2000 census data is reported by blocks and the block size varies greatly. Information on Traffic Analysis Zones (TAZ) was provided.

One of the primary datasets suggested "public lands" and information on easements, mitigation, and status of ownership will be of benefit in the final analysis. Other areas that have been targeted as desirable for acquisition were not included in the analysis.

Information on golf courses showed that there will be approximately 80 new golf courses by 2030. The future plans for development for different counties were provided.

The rules applied to obtain data for spatially distributing future land use were listed. Several rules applied to all scenarios: *existing conservation land could not be developed; existing wetlands could not be developed; existing urban density remains the same (in these preliminary scenarios); and higher-density urban development displaces agriculture.* Development was permitted on land that is currently agricultural,

pasture, rangeland, upland forest, mining/gravel pit, open, or transitional. Several potential scenarios were generated by varying other factors: *whether development was allowed in areas that have been formally proposed for conservation acquisition; whether certain “marginal” areas would develop into low-density residential; and whether low-density residential development would displace agriculture.*

A map showing the “Urban Max” and “Agriculture Max” scenarios were reviewed and showed areas from 2000 to 2025 where changes were likely. Several different scenarios were presented, along with information on areas of potential competition.

Due to the timeline for modeling and planning, the results need to be refined, finalized, and approved very soon. Improvement to input data, based on feedback from local experts and other matters need to be accomplished.

#### Question and Answer Session:

Question asked on “urban” and “ag” max – shouldn’t they be equal? The answer was not necessarily. The maps and tables show all change, not net change. An explanation of the data was provided by Mr. Liebermann. Ms. Hoppes provided additional information on modeling. After discussing data information, it was determined that it is important to know how the information collected will be used. Mr. Liebermann will work with counties and cities to improve the interpretation of their future plans.

Discussion on urban density and “smart growth”, golf projections may be lower than projected; hydrologic modeling and the wording when speaking of “modeling”.

Chart showing the existing data and a map showing the net change.

The maps were compiled with data from Lee and Collier counties. Hendry County will provide the TAZ information to staff.

Representative of the citrus industry commented on the recent hurricanes. Crops are intact.

#### 4. Population and Demand Projections, and Carl Woehlcke, Lead Economist, Water Supply, SFWMD. (A copy of the handout is made an official part of this meeting summary.)

Dr. Woehlcke said the goal is to accurately represent water use demands in the LWC Plan update evaluations. The focus of the presentation was public water supply utilities; domestic self-supplied; and commercial and industrial self-supplied users.

The areas included in the LWC planning region were discussed. Coordination among planning efforts included the Southwest Florida Feasibility Study; Lower West Coast Regional Water Supply Plan; and Consumptive Use Permits.

The strategy for water demand projections and the municipal and industrial (M&R) projection methodology was provided.

Information on the population and economic projections from 2000 – 2025 was presented. The computerized water use forecast model was explained. The list of local utilities used in the model calibration was provided. Data on passive conservation measures was discussed.

The methodology used to utilize projections was discussed. Adjustments to the population projections for Lee, Glades, Hendry and Charlotte counties were made. Collier County projections were discussed. Information on the adjustment demands was given.

Areas served were used to develop the utility specific demand projections. The population for utilities in 2000 were based on census blocks within areas served; and the population for utilities in 2025 are based on transportation analysis zone projections within areas to be served in 2025.

Presentation contained information on the structure of demands for a utility from a source. The water sources used by utilities in the Lower West Coast are: surface water, surficial aquifer, intermediate aquifer, and Floridan aquifer.

The guidance used in estimating water utility demands by source was provided. A graph showed the public water supply and domestic self supplied draft raw water demands for all counties. Comparison charts were provided on several counties showing lower west coast public water supply and domestic self supplied raw water demands.

Information for review included county level summary and comparison; and individual utility/user projection summary.

Samples were shown of data for several county's' summary sheet and data for each utility/user for each source. Areas for review/feedback are overall growth in population and location of population, e.g. TAZ analyses.

Areas for review included growth in population and demands for utility; water sources; water required for treatment and disposition of reject water; self-supplied users within areas served; ASR use and net losses; time distribution of pumpage; and source/wellfield/well-pumping strategies.

#### Question and Answer Session:

Question and discussion regarding the analyses. Dr. Woehlcke was asked if he is the lead economist on the natural system side and he replied that he is the lead economist.

Domestic water self-supply was discussed. The formula for re-use of water was discussed. This subject will be presented at the next LWC meeting and an hydrologic modeler will be at that meeting.

Timeframes on water budgets and the 1995 water effort regarding wellfields was discussed.

Assumptions involving the portion of the lower west coast that is included in the lower east coast water supply plan was discussed. At the next meeting there will be further presentations on this issue.

5. Evaluating Conservation in Water Supply Planning, and Bruce Adams, Water Conservation Officer, Water Supply, SFWMD. *(A copy of the handout is made an official part of this meeting summary.)*

Mr. Adams presented information on the principles of water conservation. The cheapest water is water that has already been developed. Acknowledgement of the value of education and awareness is the best approach to a conservation program.

The guidelines apply to agricultural and urban water use. All sources should be used efficiently. The District programs addresses supply management and demand management.

Information on agricultural water conservation included a mobile irrigation lab. More than 80% of the citrus in the region uses high efficiency irrigation.

The urban water conservation approach covered subjects such as (1) conservation is component of future capacity; (2) focus on water supply utilities and major users, landscape irrigation water use, and indoor plumbing water use; and (3) increasing water use efficiency.

Presentation covered the current SFWMD water conservation efforts. Over the last few years there have been numerous meetings with utility companies, plumbers, members of the public, etc. and this lead to 51 recommendations.

Information on consumptive use permitting requirements for water conservation for water utilities was provided.

In evaluating water conservation potential staff determined current/past utility conservation practices; analyzes of housing stock (group by dates of changes in standards); and characterized use patterns by service area and per capita trends.

A chart provided information on the potential water and cost priority application showed that retrofit and water savings per year in gallons and the cost per 1000 gallons saved annually. A second chart showed the savings/retrofit priority application to ultra-low volume toilets, showerheads, and landscape irrigation (rain switches). Calculated at 75% of priority housing stock retrofitted, the total savings was estimated to be 22.3 million gallons daily (mgd).

Recommendations were: (1) The District will provide assistance in utility service area analysis to determine water conservation capabilities; (2) mobile irrigation labs; (3) encourage agricultural conversion to low volume on a voluntary basis where feasible; (4) water savings incentive programs; and (5) alternative water supply funding.

Mr. Adams will work with utility companies to set up programs on water conservation. The Governing Board is very encouraging in water conservation efforts.

Question and Answer Session:

Representative of Lee County spoke on conservation measures used in this county as well as asked for information on surface water flow and environmental permitting. Water storage is real water conservation.

Mobile labs were discussed. The expansion of more mobile irrigation labs was talked about and the need to have support from other agencies/groups. Funding and expansion for labs was discussed. Agricultural users of high water are numbers that need to be reviewed because a lot of the water is re-used.

Better effort to account for water re-use was requested. Perhaps a separate category to account for residential area and the use is coming from existing wells. Staff said this is being addressed and they will work to get the information to the stakeholders.

A stakeholder stated that a lot of water is lost to tide and data on run-off - and the total volume running off site – would be good information to have. General discussion by stakeholders on the data that needs to be captured. Hydrologic models try to capture that information, but it is one of the highest problems to solve. Wayne Daltry spoke of a December 3, 2004 meeting that will discuss this issue. Location is to be determined. Underestimating the number of irrigation wells is a problem, and this is hard to determine.

Self-supplied water projections were discussed and there was a request that the “peak” needs to be evaluated and added to the data. Dr. Woehlcke provided additional information on the hydrologic models.

Request for aquifer storage re ASR issues and they should be discussed in the this planning process.

6. Schedule for Next Workshop, by Linda Hoppes.

Ms. Hoppes said as soon as the next meeting is scheduled she will be in touch with all interested parties.

Mr. Smith stated that there will be WRAC meetings on initial reservations held on November 22nd and December 13<sup>th</sup>. Meetings will be held in the B1 auditorium, SFWMD Headquarters, 3301 Gun Club Road, West Palm Beach, Florida.

Adjournment. The meeting adjourned at 12:22 p.m.

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Paula Moree

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